

Eliminating Adversary WMD: Lessons for Future Conflicts

by Rebecca K.C. Hersman and Todd M. Koca

Key Points

The failure to find substantial evidence of nuclear, biological, and chemical weapons in Iraq has exposed serious weaknesses in the U.S. understanding of the weapons of mass destruction (WMD) threat posed by its adversaries and in its ability to deal with these threats. A rancorous and highly politicized debate, primarily about the intelligence assessments of Iraqi WMD capabilities before Operation *Iraqi Freedom*, has dominated the national discussion of WMD in Iraq for months. Although Iraqi WMD capabilities remain elusive and, indeed, weapons may never be found, elimination operations conducted there provide important lessons.

The United States must begin to develop a permanent capability to plan for and conduct WMD elimination operations. The Department of Defense (DOD) in particular must begin to build such a capability as part of its overall approach to combating WMD proliferation. To be effective, however, DOD must work in concert with interagency partners and avoid a go-it-alone approach to this national priority.

Preserving the knowledge and experience gained in Iraq and Afghanistan and translating them into effective structures and doctrine will be key challenges for military and civilian planners. Incorporating WMD elimination into early planning, ensuring access to key enabling capabilities, providing sufficient time to train units and exercise concepts, and, perhaps most importantly, following a program-centric approach to address the totality of adversary programs and stockpiles are all critical to future success.

As tensions between Iraq and the United States worsened in mid-to-late 2002 and as preparations began for Operation *Iraqi Freedom*, policymakers and military planners began to wrestle with the challenges posed by Iraqi weapons of mass destruction (WMD). Indeed, Iraqi defiance and deception in the face of United Nations (UN) sanctions, coupled with growing fears of WMD transfer to terrorist organizations—most prominently al Qaeda—were two primary reasons for confronting Saddam Hussein. Just as in the first Gulf War in 1991, deterring and defending against possible Iraqi use of WMD against coalition forces were key concerns for planners. However, as the crisis escalated in 2002, Department of Defense (DOD) planners began to foresee another challenge: how to remove comprehensively and permanently the threat of Iraqi WMD, not just to U.S. troops but also to the Middle East region and the world.

When faced with this challenge in late fall 2002, military planners and supporting DOD organizations realized that the comprehensive elimination of an adversary WMD program would entail far more than targeting enemy sites for destruction. A new mission, WMD elimination, was created, and planners began trying to define, adapt, and incorporate this mission into existing and developing war plans. As they did, they discovered critical gaps in U.S. preparations for dealing with a WMD-armed adversary.

While DOD made great strides over the last 10 years in improving the U.S. military's ability to fight and win in a WMD environment, far less attention was paid to the tasks

of locating, understanding, and removing (or disposing of) an adversary program. In Operation *Desert Storm*, these tasks were not addressed until after the cease-fire agreement, and then they were handled as postconflict activities under UN management. In the lead-up to *Iraqi Freedom*, policy and military experts disagreed about what exactly the role of the military would be; how long, if at all, it would assume primary responsibility; and when and to whom it would hand off mission responsibility.

Despite these uncertainties, planners began crafting concepts of operation to allow troops on the ground to locate, characterize, and secure Iraqi WMD and attendant development programs and delivery systems—a process that came to be known as exploitation. Even as WMD exploitation plans progressed, strategies to deal with the actual disposition or destruction of Iraqi WMD stocks, weapons, and production capabilities lagged far behind. Given the long and tortuous history surrounding Iraq's illicit weapons programs and the UN role in attempting to eliminate these capabilities verifiably, it was unsurprising that the actual disposition or destruction of Iraqi WMD was initially considered a secondary task that would fall primarily to non-DOD organizations. As such, destruction issues were not addressed as early and to the same degree as other WMD elimination tasks.

Some within DOD assumed that rapid regime change itself would produce conditions under which adversary WMD and associated programs could be located and disposed of cooperatively and peaceably. Others assumed that rapid military victory would allow some of

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Origins of This Study

In late 2002, the Office of the Secretary of Defense asked the Center for the Study of Weapons of Mass Destruction (WMD Center) to generate lessons and recommendations for elimination operations during and after military conflict. The WMD Center conducted several workshops and a series of roundtable meetings to bring together operators and analysts experienced in elimination operations with key Department of Defense and interagency partners. The WMD Center built a community of interest, gleaned important lessons from prewar planning as well as its conduct and aftermath, and developed recommendations for institutionalizing established capabilities and creating new ones. In addition, in February 2004, the Center hosted a classified conference to address the most important lessons learned from experiences in Iraq and Afghanistan and to discuss how best to institutionalize WMD elimination for future contingencies. The major findings from these activities are summarized in this Strategic Forum and reported more fully in Rebecca K.C. Hersman, Occasional Paper 1, *Eliminating Adversary Weapons of Mass Destruction: What's at Stake?* (Washington, DC: Center for the Study of Weapons of Mass Destruction, October 2004). The Center plans to continue its efforts in these areas.

the slower processes of WMD elimination to be delayed until the end of major combat operations, when security conditions would permit nonmilitary and non-U.S. partners to perform the required tasks. As conflict drew closer, planners reassessed some of these assumptions and took steps to formulate and build additional elimination capabilities. But, as has since become clear, many assessments and assumptions remained relatively unaltered from prewar through warfighting. Particularly in the critical area of prewar intelligence, only after the start of combat operations were serious problems identified.

A relatively new mission, or at least a newly rediscovered one (if one includes the precedent of post–World War II Germany), WMD elimination has suffered from serious growing pains in *Iraqi Freedom*: incorrect planning assumptions and intelligence, lack of preparation time, and problems with execution and implementation, among others. Yet there were demonstrable successes. Without a doubt, there are important lessons to be learned from the Iraq experience.

Operation *Iraqi Freedom*

In late 2002, DOD began designing an exploitation task force that could locate,

identify, characterize, and (to a very limited extent) secure and disable adversary WMD capabilities. DOD settled on a multitiered and sequenced approach to eliminating the WMD problem in Iraq. At the first level, site assessment teams (SATs)—comprised of fewer than a dozen individuals and forward deployed with maneuver elements—would locate and identify sites of interest and perform first-order analysis of whatever was uncovered. At the

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second level, three mobile exploitation teams (METs) would perform confirmatory analysis on sites and evidence uncovered by SATs, as well as other sites identified on an ad hoc basis. With greater analytical, logistical, and manpower capabilities, METs would systematically exploit sites and people of interest as

maneuver elements pushed ahead toward objectives. Manning SATs and METs were both military and civilian experts from across the services and various defense agencies.

To provide command, control, and supporting capabilities to these newly formed units, military planners selected the 75th Field Artillery Brigade from the U.S. Army III Corps and renamed it the 75th Exploitation Task Force (XTF). With much of its heavy equipment unavailable for combat because it was floating off the coast of Turkey, this unit would instead lead the effort to find and secure Iraqi WMD. However, there remained a growing concern within the Office of the Secretary of Defense that even the new capabilities anticipated by the 75th XTF would be insufficient to disable and eliminate the nuclear, biological, and chemical capabilities expected to be found in Iraq. Thus, in late March 2003, the Defense Threat Reduction Agency (DTRA) established Task Force Disablement and Elimination (TF D/E) to take the lead in disabling and disposing of any weapons or WMD-related equipment and materials discovered by the 75th XTF or other units. In addition, special operations forces would play an important role in finding and neutralizing WMD threats.

Supporting the 75th XTF and these other units was a range of individuals and organizations drawn from across DOD and other government agencies, which included intelligence specialists, microbiologists, physicists, chemists, and other scientific experts and uniformed personnel experienced in handling hazardous materials. For example, the U.S. Army Nuclear and Chemical Agency created a nuclear disablement team to assist DTRA and TF D/E efforts.¹ The Army's Technical Escort Unit also contributed its unique experience with detecting, monitoring, rendering safe, and escorting WMD materials. In addition to this specialized expertise, the 75th XTF required myriad enabling capabilities drawn from major supported commands in theater, notably Army V Corps and Marine Corps I Marine Expeditionary Force (MEF). Such capabilities included transportation (air and ground), logistics, communications, linguists, and security and explosive ordnance disposal. Similarly, connections with the Intelligence Community and U.S. Government and nongovernmental scientists behind the front lines provided important reachback analytical capabilities.

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Challenges in the Iraqi WMD Hunt

Even before the end of major combat operations, several important operational problems surfaced:

- The character of operations shifted from an expected focus on illicit weapons and agents to a much more geographically dispersed “investigation” of potential WMD sites.
- Existing intelligence produced “dry holes” with little information or evidence of WMD activities at suspected sites.
- Assessment teams armed with WMD detection equipment, developed for force protection rather than for identification and analysis of agents in the field, registered false positives at an alarming rate.
- Most teams had expected a focus on chemical agents and weapons, but, in reality, radiological materials (non-weapons-grade) played a much larger role.
- Most teams lacked sufficient training, expertise, and operational concepts for retrieving important information contained in documents and computers, developing human intelligence, or conducting forensic analysis.
- Shortfalls in transportation, security, logistics, and other enabling capabilities delayed operations and limited effectiveness.
- Systematic and comprehensive looting, public disorder, and a hostile security environment made exploitation operations complex, resource-intensive, and dangerous.

The speed and professionalism with which the 75th XTF and other elimination organizations activated and deployed were commendable but could not fully compensate for the lack of preexisting plans, doctrine, training, exercising, and resources. It was not until early 2003 that the 75th XTF was able to bring its constituent elements together to begin training, developing, and testing specific tactics, techniques, and procedures. At the same time, general guidance from senior-level military and civilian leaders was being refined. As conflict commenced in mid-March, the weaknesses of the intelligence guiding the targeting process and shaping exploitation priorities posed increasing challenges. Moreover, the task force lacked the organic transportation, communication, and security assets necessary to establish and maintain positive control over key sites and positions. V Corps and I MEF, which supplied many of these enabling capabilities when they were not resident within the 75th XTF, had to reconcile competing priorities. Delays and shortfalls inevitably followed. Finally, as the hunt for Iraqi weapons of mass destruction grew more complex and the smoking gun evidence of

WMD programs proved surprisingly elusive, exercising effective and integrated command and control over all the different units associated with the hunt became more difficult.

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Throughout, individuals and units charged with finding and eliminating the weapons had to deal with ad hoc, evolving organizational structures that were managed by several different offices and commands.

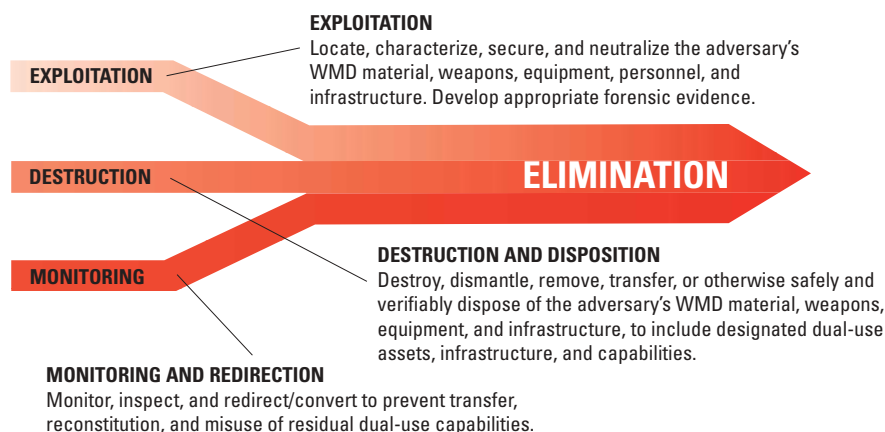
As major combat operations drew to a close in late April 2003, significant changes regarding the elimination mission were under way. With little WMD material to disable or destroy, efforts shifted toward an investigatory approach. Leaders both in theater and in the United States recognized the need to make forensic and analytical components larger and more robust. On-the-ground intelligence, particularly human intelligence, would need to

expand substantially, and operations would have to move away from the site-centric approach that prevailed during the early weeks of the war. Replacing it was an approach that focused more on gleaning intelligence from people and documentation. In line with this shift, in late April and May, the 75th XTF began transferring its responsibility for WMD exploitation operations to the nascent Iraq Survey Group (ISG). In June 2003, the 75th XTF resumed its prior designation as the 75th Field Artillery Brigade and returned home to Fort Sill, Oklahoma.

The ISG assumed full operational control for the mission in mid-June 2003, but it took several weeks before the organization was fully deployed and functioning in support of the WMD elimination mission. In Washington, concerns over the WMD search continued to escalate, and in Iraq, operations slowed as leadership of the elimination mission remained unclear. Unfortunately, in the operational pause that occurred as the 75th XTF began to step down and as the ISG started to form, operating conditions in Iraq continued to deteriorate as a result of looting, insurgency, and terrorism. By most accounts, it was not until midsummer, when David Kay took control, that the ISG became fully operational. In the transition period between the 75th XTF and the ISG, however, many sites had suffered depredations caused by looting and destruction, intentional or otherwise, seriously hampering long-term efforts to get to the bottom of Iraq's prewar WMD efforts. Meanwhile, security conditions continued to decline, and the permissive conditions needed to reduce dependence upon military capabilities for these operations never materialized.

Much of the success of the 75th XTF, special operations forces, and the follow-on ISG has been masked by the seemingly futile hunt for WMD stockpiles in Iraq, but certain accomplishments should not be overlooked. In a matter of weeks, a large conventional unit was transformed into a site exploitation organization. In the course of the development and deployment of the 75th XTF, the U.S. military built a preliminary force structure, plans, definitions, and community around the entirely new concept of WMD elimination. With little training, few concepts of operation, and no doctrine, these teams operated safely on the

WMD Elimination



battlefield in a hostile environment. As conditions and requirements changed, the organization adapted—first, as preexisting intelligence regarding sites proved less useful than hoped, and later, as the scope of the mission broadened to encompass a full accounting of Iraqi WMD programs and their history (as under the ISG). While not uncovering the large-scale stockpiles or extensive research, development, and production programs that many anticipated, the ISG has shed considerable light on illicit Iraqi WMD activities. Moreover, it has done so in an environment where much information was lost to looting, vandalism, and coordinated destruction.

Why Elimination Matters

Given the extent of nuclear, biological, and chemical proliferation around the globe, the United States can ill afford to assume that any significant future adversary would not possess a WMD capability. WMD threats to U.S. interests and operations may stem from either a hostile state or a transnational actor bent on subverting American interests or mission success. As demonstrated by evidence uncovered in Afghanistan, the public exhortations of terrorist leaders, and repeated incidents over the last decade, certain terrorist organizations have a serious and growing interest in acquiring and using nuclear, biological, and chemical weapons. With numerous states currently seeking or possessing such weapons, preparations for prevailing against WMD use will be

critical to military strategy and planning. Developing effective WMD elimination capabilities, however, is equally important.

Elimination operations can play a vital role in the ongoing war on terrorism by removing sources of precursor agents or raw materials, denying access to developmental facilities, scientists, and their knowledge, and securing completed weapons. Precluding the opportunity for terrorist organizations to acquire weapons

understanding and accounting for an adversary's nuclear, biological, or chemical programs are vital to combating weapons of mass destruction

of mass destruction from a sympathetic regime or to gain control of materials, know-how, and weapons in the chaotic aftermath of a military campaign is essential. Elimination operations cannot substitute for the range of tools needed to deal with active WMD proliferation between states or from states to groups. But in wartime and postwar scenarios, conducting speedy and comprehensive WMD elimination operations may be the first, best, and only effective tool.

In addition, the United States may have to enter a state to secure, remove, or destroy portions or all of its WMD arsenal or infrastructure when growing domestic discontent or destabilization caused by radical elements risks the use

or proliferation of such weapons or their technology. WMD elimination could become necessary even where WMD materials were either previously unknown or unsuspected. Emerging intelligence or outright discovery of weapons or related materials in destabilized or deteriorating regions or states would pose serious proliferation risks that might be solved only through elimination operations.

Understanding and accounting for an adversary's nuclear, biological, or chemical programs are vital to combating weapons of mass destruction. Revelations in Afghanistan, Iran, Iraq, Libya, North Korea, Pakistan, and elsewhere demonstrate the interconnectedness of the proliferation challenge. The networks crafted by Saddam Hussein, A.Q. Khan, Moammar Qaddafi, and Kim Jong-Il—not to mention others yet unknown—will not be readily recognized or easily severed. U.S. forces in Iraq continue to learn about Saddam Hussein's activities (WMD-related and otherwise) and doubtless will continue translating and analyzing documents and data well after U.S. troops relinquish control. Even a defeated or subdued state can pose a serious proliferation challenge—and gaining a complete understanding of how its proliferation networks operate may be equally daunting.

Defining Elimination

WMD elimination encompasses the range of activities necessary to effect the systematic control, removal, or destruction of a hostile nation's or organization's capability to research, develop, test, produce, store, deploy, or employ nuclear, biological, chemical, or radiological weapons. WMD elimination, therefore, is not simply the final portion of a process leading to the ultimate physical seizure, destruction, or removal of weapons of mass destruction and their delivery means. Rather, elimination includes the entire process of locating and characterizing these programs (exploitation) as well as destroying, removing, or neutralizing them (destruction and disposition) and ensuring that they will not be reconstituted or transferred in the future (monitoring and redirection).

When faced with a WMD-armed adversary, the United States must eliminate not only the weapons themselves but also the attendant programs, infrastructure, and expertise. However, WMD elimination can be distinguished

from other disarmament activities, such as cooperative threat reduction or negotiated international agreements between relatively unified partners, because the elimination mission is focused on real or potential adversaries whose WMD programs and capabilities threaten American interests. Clearly, this is a broad mission and mandate but one with a unified purpose: to remove completely and verifiably the threat of WMD from a hostile state or organization.

The Right Approach

WMD elimination is more than *finding* nuclear, biological, and chemical weapons; it is about understanding the range of activities the adversary has undertaken to acquire these weapons, including development, production, and employment. While existing weapons pose the most immediate threat, WMD weapons are an end product of a long process. To eliminate an adversary program, the United States must first be able to find and secure research, development, and production capabilities, as well as scientific and technical expertise, in each of the major weapons categories and their delivery systems. This programmatic approach is especially important because many potential WMD-armed countries may develop "break-out" systems that can be put into production and weaponized in fairly short order without maintaining stocks of weapons.

Second, WMD elimination is not a mission that can be delayed until the postwar phase of operation when major combat operations have ceased. A military strategy that relies on holding and securing WMD sites until they can be exploited and destroyed in a more leisurely fashion (preferably by nonmilitary forces) fundamentally misunderstands the nature of these programs. Decentralized and dispersed hide sites and dual-use facilities are far more likely to characterize future weapons of mass destruction. Even where larger facilities are correctly identified, effective security is a profoundly daunting prospect during combat operations.

When the United States engages a WMD-armed adversary, the process of eliminating these capabilities will inevitably span all phases of conflict from prewar engagement through combat operations to postwar reconstruction. To be effective, this must entail a single, integrated command and control structure capable of identifying resources and capabilities, leading the planning process, and directing training and exercises for all phases of conflict

across a broad range of scenarios. While DOD has numerous options for designing and deploying such a headquarters, there are certain prerequisites: it must be joint, operational, and able to interact with international and inter-agency elements, and it must provide senior command leadership.

Third, while DOD needs an institutionalized WMD elimination capability, it cannot and should not take a go-it-alone approach. In some cases, elimination activities might be best led by non-DOD agencies and organizations where the Department of Defense plays a supporting role. In all cases, however, WMD elimination is a highly interdisciplinary activity. Effective operations will demand an unprecedented fusion of operational capability, subject matter expertise,

any WMD elimination operations that do not expect and plan for gaps and surprise are doomed to failure

and intelligence support. The allocation and distribution of scarce WMD assets is one of the most essential elements of elimination planning and operations. Maintaining the right balance of deployed operational capability and reach-back connectivity is essential.

WMD elimination operations obviously require highly specialized expertise (in microbiology, chemistry, and physics, for example) and equipment (such as sophisticated detectors, mission-oriented protective posture and decontamination gear, and sampling and forensic kits). Less obvious but no less important are the enabling capabilities that allow subject matter experts to carry out their activities. Key among these are security forces, transportation assets (air and land), linguistic support, intelligence assets (both in-field and reachback), communications equipment and operators, and other logistics. Pre- or postconflict, and particularly during a war, these enabling capabilities are likely to be in high demand and short supply. Speed is crucial to the success of any elimination mission. Ensuring quick and reliable access is essential to enabling capabilities, including developing organic capabilities when necessary, for units tasked with WMD elimination.

Organizations Contributing to WMD Elimination

- Military services
- Combatant commands
- Office of the Secretary of Defense
- The Joint Staff
- Defense Threat Reduction Agency
- Defense Intelligence Agency
- Central Intelligence Agency
- Department of State
- Department of Energy
- National Security Council/Executive Office
- Department of Homeland Security
- National Laboratories (Sandia, Los Alamos, and others)
- Federal Bureau of Investigation

During wartime, add:

- Land component commander and specific military units (for example, V Corps and I Marine Expeditionary Force during Operation *Iraqi Freedom*)
- Coalition partners

The U.S. Government must appropriately resource its intelligence collection and analysis against WMD programs as well as appropriately account for adversary counterintelligence activities. Where intelligence on sites and individuals is weak, the tasks of establishing priorities for targeting and operations are nearly impossible. Nevertheless, the gaps in WMD intelligence are extensive and unlikely to be filled in the near term. Any elimination operations that do not expect and plan for gaps and surprise are doomed to failure.

The Wrong Lessons

Given the unresolved outcome of the Operation *Iraqi Freedom* weapons hunt, the potential for learning the wrong lessons is high. Three particular wrong lessons may

appear attractive or logical but could bode ill for the future if given credence.

Wrong Lesson 1. “Iraq is an outlier case; therefore, we won’t have to do this often.” While removing WMD threats under nonhostile circumstances, as in Libya, is far more preferable than doing so through conflict, it appears likely that the United States will be called upon to conduct WMD elimination operations nearly as often as it is called upon to go to war. The Nation cannot afford to be less prepared in this area than it is for general battlefield success, especially in light of continued terrorist efforts to acquire weapons of mass destruction.

Wrong Lesson 2. “Intelligence failure explains everything.” This conclusion implies that with the proper intelligence, ad hoc U.S. preparations for elimination operations would have been sufficient. However, the WMD hunt in Iraq cannot be explained as a single point of failure. In all areas, from planning and doctrine to training and exercises to capabilities and resources, there exist substantial problems with the ability to conduct WMD elimination operations. Moreover, perfect intelligence is an unattainable goal. The U.S. military needs to be able to operate in uncertainty. It also needs forces that can locate, exploit, and disable WMD programs in hostile areas, even in the absence of precise, actionable intelligence. If the Nation allows a simple summary of “intelligence failure” to suffice as explanation of the WMD experience in Iraq, it will miss the larger lesson.

Wrong Lesson 3. “This is not a DOD mission; it is somebody else’s job.” Some argue that the WMD hunt in Iraq demonstrates how DOD should not have these responsibilities, that military forces should do the minimum necessary to secure sites and areas, and that most WMD elimination activities should be left in the hands of civilian or international entities with expertise in these areas. Unfortunately, that assessment simply does not stand up to scrutiny. When the United States engages a WMD-armed adversary or is required to undertake military operations in pursuit of these weapons, the first order of business is finding, securing, and eliminating them. So much vital knowledge and information has been permanently lost in the chaos of postwar Iraq and the rampant looting following the U.S. invasion that the true parameters of Iraqi WMD activities will almost certainly never be known. Indeed, in *Iraqi Freedom*, the United States may well

have gotten lucky in terms of WMD dispersal—at least there were not large stockpiles of chemical or biological weapons for international terrorists or Iraqi insurgents to plunder after major combat operations ceased.

Lessons Learned

Despite the difficulties faced by operators in Iraq, critical lessons can be learned from the experience of *Iraqi Freedom*. The 75th Exploitation Task Force, TF D/E, special operations forces, and the Iraq Survey Group all provide a wealth of information and experience that can and must be tapped as policy-makers and planners move to institutionalize the WMD elimination mission. Although there are many, eight overarching lessons emerge. The United States should:

Embed and Institutionalize the Mission. Like any other task undertaken as part of combat operations, WMD elimination must be fully integrated into the deliberate planning process

viewing WMD elimination as just another postconflict activity to be conducted at some later date in a largely permissive environment is simplistic and dangerous

and reflected in all major base plans, the strategic planning guidance, contingency planning guidance, and budget development process. If this is not done, WMD elimination will simply not exist as a DOD mission. Institutionalizing it makes it real. A clear, standardized vocabulary for elimination must be created, observed, and embedded in planning and doctrine. Without common terminology and well-understood definitions, both accurate assignment and execution of mission tasks are impossible.

Organize for Success. Current and future threats require a standing peacetime organization specifically assigned the WMD elimination mission. This organization should have a clear command and control structure headed by a general officer and staffed with trained personnel atop a combination of pre-identified and

dedicated assets. This structure should be readily augmentable, deployable, and capable of operating, in one form or another, across all phases of a conflict. This organization must be joint in character, preferably as part of a combatant command. Moreover, though this structure should be military in nature, it should establish strong and deep links with interagency and international partners, civilian experts, and the private sector. This office can then provide a center of focus for DOD-wide efforts on this issue, act as the primary conduit for information, doctrine development, training, and exercising, and coordinate DOD activities with (the necessary) contributing civilian organizations. The Department of Defense should neither attempt single-handedly to resource and conduct this mission nor concede its role.

Prepare for the Worst. Coercive disarmament is an inherently nonpermissive activity. The United States must be capable of conducting WMD elimination operations, concurrent with major combat operations when necessary, to find, exploit, and secure WMD materials and programs. In addition, even operations planned for or delayed until postconflict are likely to be conducted under less-than-hospitable circumstances, whether resulting from popular resistance, military holdouts, guerrilla activity, contamination (in cases of WMD use or unintended agent release), looting, or general instability. Viewing WMD elimination as just another postconflict activity to be conducted at some later date in a largely permissive environment is simplistic and dangerous and increases the likelihood that such operations will ultimately be unsuccessful.

Plan for Surprise. Improving WMD intelligence across the board will be a vital mission in coming years. The apparent divergence between prewar intelligence regarding Iraq and the on-the-ground reality underscores the need for better capabilities in this area. The revelations in Tripoli regarding the unexpected extent of the Libyan programs and the general lack of WMD-related intelligence in North Korea also lend credence to the importance of this mission. However, even if intelligence capabilities are improved in key areas—particularly human intelligence—gaps and surprises will remain the norm, not the exception. Thus, WMD elimination operations must be flexible and responsive to emerging intelligence, the cycling of new information, and dramatic changes to on-the-ground knowledge. Intelligence-sharing and collaboration between operational elements and

the Intelligence Community also must be improved and enhanced. In addition, both military and non-military components must incorporate a strong counterintelligence element into their planning and operations.

Train and Exercise. Forces tasked with eliminating WMD command and control must have the opportunity to test plans and procedures as well as to resolve key difficulties. Only through advance preparation can DOD address issues such as deconfliction, communications, intelligence and information sharing, and competing logistical demands before they pose a threat to mission success. Units must be given time to test plans with one another so that these problems can be mitigated or resolved. Moreover, intensive red-teaming of concepts and strategies prior to conflict will better prepare coalition forces for the aggressive counterintelligence efforts and adaptive tactics, techniques, and procedures employed by hostile elements as they attempt to conceal or destroy evidence of WMD activities.

Target Programs, Not Places. WMD elimination clearly encompasses a wide range of tasks, but at its core is one central mission: to find and remove permanently a hostile nation's WMD capability and the threat it poses to the United States. To achieve this core mission in future contingencies, elimination operations should be organized to follow a program-centric approach that seeks a comprehensive understanding and full accounting of an adversary's WMD programs and capabilities. As such, efforts should be fully integrated and balanced between exploiting sites, people, and data/documentation. This will allow U.S. forces to collect and utilize the entire panoply of information and evidence and do so as rapidly and effectively as possible. Adopting a program-centric approach puts a premium on fusing subject matter expertise, intelligence assets, security, linguistics, and other supporting capabilities—creating truly interdisciplinary units.

Employ and Improve Technology. The Department of Defense must look to technological innovation to enhance the efficiency, speed, and overall effectiveness of WMD elimination operations, as well as to reduce manpower requirements. Key areas of focus include detection, monitoring, analysis, communications, agent and weapons neutralization or defeat, and security. Many of the problems experienced in *Iraqi Freedom*—recurring false positives of chemical agent detectors, insufficient bandwidth

to convey images and information from real-time sites under exploitation, and looting and intentional destruction caused by inadequate or nonexistent security at sites of interest—could be ameliorated by such innovations. In addition, technological improvements could reduce the overall number of forces needed for WMD elimination operations, by either increasing the pace of operations or reducing the number of personnel required to conduct them or providing equivalent analytical, investigative, and support

to engage in military conflict with a WMD-armed or -suspected adversary without the plans, doctrine, and capabilities necessary to find and eliminate its weapons is to court disaster

capabilities to teams of reduced size. Using technology to make more of these capabilities organic to WMD elimination—specific units may be an effective way to align demands and resources more closely.

Maintain Focus. Directing senior-level military and civilian attention to the issue of institutionalizing and resourcing the WMD elimination mission within DOD and the broader national security community is itself a serious challenge. Yet without effective advocates at the upper echelons of government, adequate funding and prioritization simply will not materialize. Without knowledgeable and active senior-level advocates to ensure sustained funding, a significant WMD elimination capability is unlikely to be developed.

What's at Stake?

With the passage of time, weapons of mass destruction are becoming both easier to acquire, build, hide, and transport and more appealing to states and terrorists who seek to threaten the United States and its allies. A robust WMD elimination capability is essential to meet this threat and protect Americans from catastrophic disaster. Hostile states and terrorists have every incentive to pursue the acquisition and use of weapons of mass destruction if they believe that our ability to detect, locate, and destroy these capabilities is inadequate. Moreover, to engage in military conflict with a WMD-armed or -suspected adversary without the plans, doctrine, and capabilities necessary to find and eliminate its weapons is to court disaster. To do so endangers future military operations and the protection of U.S. forces and civilians, risks a crisis of confidence among coalition partners and allies, and may worsen the proliferation of these weapons and capabilities through dispersal, leakage, and dissemination. There can be no enduring victory in situations in which an adversary is defeated but its weapons of mass destruction or the ability to produce them remains intact. The United States simply cannot afford to be wrong when it comes to eliminating the world's most dangerous weapons in the hands of its most dangerous enemies.

Note

¹ Gerard Vavrina and John Greaves, "Nuclear Disablement Team Operations in Operation *Iraqi Freedom*, Parts 1 and 2," *NBC Report* (Fall/Winter 2003), 7–10, and (Spring/Summer 2004), 25–30.

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The broad mandate of the Center includes research, education, and outreach. Its research focuses on understanding the security implications of weapons of mass destruction, as well as the challenge of fashioning effective responses to them. Education and outreach programs seek to enhance awareness in the next generation of military and civilian leaders of the WMD threat as it relates to defense and homeland security policy, programs, technology, and operations. As a part of its outreach efforts, the WMD Center hosts annual symposia on key issues, bringing together experts and participants from the government and private sectors.

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